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NiceZyme View of ENZYME: EC 1.1.1.267

Official Name

1-deoxy-D-xylulose-5-phosphate reductoisomerase.

Alternative Name(s)

1-deoxyxylulose-5-phosphate reductoisomerase.

DXP-reductoisomerase.
Reaction catalysed

2-C-methyl-D-erythritol 4-phosphate + NADP(+) <=> 1-deoxy-D-xylulose 5-phosphate + NADPH

Cofactor(s)

Manganese or Cobalt or Magnesium.

Comment(s)

The enzyme from several eubacteria, including Escherichia coli, forms part of an alternative nonmevalonate pathway for terpenoid biosynthesis.

Cross-references

BRENDA [1.1.1.267](#)

PUMA2 [1.1.1.267](#)

PRIAM enzyme-specific profiles [1.1.1.267](#)

Kyoto University LIGAND chemical database [1.1.1.267](#)

IUBMB Enzyme Nomenclature [1.1.1.267](#)

IntEnz [1.1.1.267](#)

MEDLINE [Find literature relating to 1.1.1.267](#)

Q81N10, DXR1_BACAN; Q81B49, DXR1_BACCR; Q638M6, DXR1_BACZZ;
Q6HG59, DXR1_BACHK; Q81WL4, DXR2_BACAN; Q819Y3, DXR2_BACCR;
Q636K5, DXR2_BACZZ; Q6HEZ4, DXR2_BACHK; Q6FCG9, DXR_ACIAD;
Q8UC86, DXR_AGRT5; Q8YP49, DXR_ANASP; Q66722, DXR_AQUAE;
Q9XFS9, DXR_ARATH; Q732P8, DXR_BACC1; Q64PY9, DXR_BACFR;
Q9KA69, DXR_BACHD; Q5WFT4, DXR_BACSK; Q31753, DXR_BACSU;
Q8A684, DXR_BACTN; Q8G7Y7, DXR_BIFLO; Q7WJ88, DXR_BORBR;
Q7WA54, DXR_BORPA; Q7VYC4, DXR_BORPE; Q89KP9, DXR_BRAJA;
P57329, DXR_BUCAI; Q8K9S7, DXR_BUCAP; Q62JD0, DXR_BURMA;
Q63T18, DXR_BURPS; Q9PMV3, DXR_CAMJE; Q9A709, DXR_CAUCR;
Q823G9, DXR_CHLCV; Q9PKW8, DXR_CHLMU; Q9Z8J8, DXR_CHLPN;

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<u>Q8KG43</u> ,	DXR_CHLTE;	<u>Q84074</u> ,	DXR_CHLTR;	<u>Q7NVY8</u> ,	DXR_CHRVO;
<u>Q97I58</u> ,	DXR_CLOAB;	<u>Q8XJR1</u> ,	DXR_CLOPE;	<u>Q895K5</u> ,	DXR_CLOTE;
<u>Q6NGL1</u> ,	DXR_CORDI;	<u>Q8FP80</u> ,	DXR_COREF;	<u>Q8NP10</u> ,	DXR_CORGL;
<u>Q9RU84</u> ,	DXR_DEIRA;	<u>Q6AP35</u> ,	DXR_DESPS;	<u>Q72DR3</u> ,	DXR_DESVH;
<u>Q8X8Y1</u> ,	DXR_ECO57;	<u>P45568</u> ,	DXR_ECOLI;	<u>Q6D8D9</u> ,	DXR_ERWCT;
<u>Q8R622</u> ,	DXR_FUSNN;	<u>Q74BW4</u> ,	DXR_GEOSL;	<u>Q7NID1</u> ,	DXR_GLOVI;
<u>Q7VM27</u> ,	DXR_HAEDU;	<u>P44055</u> ,	DXR_HAEIN;	<u>Q9ZML6</u> ,	DXR_HELPJ;
<u>P56139</u> ,	DXR_HELPY;	<u>Q9AJD7</u> ,	DXR_KITGR;	<u>Q6AEY1</u> ,	DXR_LEIXX;
<u>Q72U08</u> ,	DXR_LEPIC;	<u>Q8F146</u> ,	DXR_LEPIN;	<u>Q92C37</u> ,	DXR_LISIN;
<u>Q720A5</u> ,	DXR_LISMF;	<u>Q8Y7G4</u> ,	DXR_LISMO;	<u>Q65R75</u> ,	DXR_MANSM;
<u>Q9XES0</u> ,	DXR_MENPI;	<u>Q60BA4</u> ,	DXR_METCA;	<u>P64013</u> ,	DXR_MYCBO;
<u>Q9CBU3</u> ,	DXR_MYCLE;	<u>Q73VS1</u> ,	DXR_MYCPA;	<u>P64012</u> ,	DXR_MYCTU;
<u>Q9JX33</u> ,	DXR_NEIMA;	<u>Q9K1G8</u> ,	DXR_NEIMB;	<u>Q82U01</u> ,	DXR_NITEU;
<u>Q5YS72</u> ,	DXR_NOFCF;	<u>Q6MEL5</u> ,	DXR_PARUW;	<u>P57985</u> ,	DXR_PASMU;
<u>Q7N8P3</u> ,	DXR_PHOLL;	<u>Q6LN30</u> ,	DXR_PHOPR;	<u>Q7MUW3</u> ,	DXR_PORGI;
<u>Q6A7K8</u> ,	DXR_PROAC;	<u>Q7VB62</u> ,	DXR_PROMA;	<u>Q7V6J8</u> ,	DXR_PROMM;
<u>Q7V0W0</u> ,	DXR_PROMP;	<u>Q9KGU6</u> ,	DXR_PSEAE;	<u>Q88MH4</u> ,	DXR_PSEPK;
<u>Q886N7</u> ,	DXR_PSESM;	<u>Q8XZI5</u> ,	DXR_RALSO;	<u>Q92LP6</u> ,	DXR_RHIME;
<u>Q7URM5</u> ,	DXR_RHOBA;	<u>Q6N5Q6</u> ,	DXR_RHOPA;	<u>Q8Z9A6</u> ,	DXR_SALTI;
<u>Q8ZRP3</u> ,	DXR_SALTY;	<u>Q8EGG9</u> ,	DXR_SHEON;	<u>Q83MD3</u> ,	DXR_SHIFL;
<u>Q82K41</u> ,	DXR_STRAW;	<u>Q9KYS1</u> ,	DXR_STRCO;	<u>Q67PA9</u> ,	DXR_SYMTH;
<u>Q8DK30</u> ,	DXR_SYNEL;	<u>Q9RCT1</u> ,	DXR_SYNLE;	<u>Q7U8C3</u> ,	DXR_SYNPX;
<u>Q55663</u> ,	DXR_SYNY3;	<u>Q9WZZ1</u> ,	DXR_THEME;	<u>Q72KE2</u> ,	DXR_THET2;
<u>Q8RA28</u> ,	DXR_THETN;	<u>Q73K78</u> ,	DXR_TREDE;	<u>Q83610</u> ,	DXR_TREPA;
<u>Q83IC8</u> ,	DXR_TROW8;	<u>Q83GY8</u> ,	DXR_TROWT;	<u>Q9KPV8</u> ,	DXR_VIBCH;
<u>Q87ME3</u> ,	DXR_VIBPA;	<u>Q8DBF5</u> ,	DXR_VIBVU;	<u>Q7MIG6</u> ,	DXR_VIBVY;
<u>Q8D2G6</u> ,	DXR_WIGBR;	<u>Q73GG3</u> ,	DXR_WOLPM;	<u>Q8PML1</u> ,	DXR_XANAC;
<u>Q8PAV9</u> ,	DXR_XANCP;	<u>Q9PEI0</u> ,	DXR_XYLFA;	<u>Q87EH9</u> ,	DXR_XYLFT;
<u>Q8ZH62</u> ,	DXR_YERPE;	<u>Q667J3</u> ,	DXR_YERPS;	<u>Q9X5F2</u> ,	DXR_ZYMMO;

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